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**From:** Shalev, Omer [Shalev.Omer@epa.gov]  
**Sent:** 5/4/2018 6:25:34 PM  
**To:** Manfredi, Mark S CIV CNRH, N4A [mark.manfredi@navy.mil]; Linder, Steven [Linder.Steven@epa.gov]; roxanne.kwan@doh.hawaii.gov; Pallarino, Bob [Pallarino.Bob@epa.gov]; Ichinotsubo, Lene K [lene.ichinotsubo@doh.hawaii.gov]  
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**Subject:** [Non-DoD Source] Updates- RE: Red Hill Coupon Meeting Notes and Revised Sketches

Mark, are there updates on the plans for destructive testing that the Regulatory Agencies can review?

It was our understanding that the Navy was planning to: 1) do some revisions to the Laboratory SOW, 2) review the availability of TestTex images for the coupon sites, 3) present the proposed final repairs expected for each area prior to coupon removal, and 4) address the topics you recorded in the email below.

We are aware that the Navy is hoping to remove coupons the week of May 28. We think it is important that Navy address the points above in writing prior to coupon removal so that we have a definitive understanding of 1) what was predicted for each coupon site, 2) what are the proposed final repairs for each site, and 3) the coupon handling and laboratory analyses that are going to be conducted for this exercise.

We are concerned that the legitimacy of the destructive testing will be questioned if some of this information is not provided in a timely fashion.

Sincerely,

Omer Shalev  
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-----Original Message-----

From: Manfredi, Mark S CIV CNRH, N4A [mailto:mark.manfredi@navy.mil]  
Sent: Sunday, April 22, 2018 10:38 PM  
To: Linder, Steven <Linder.Steven@epa.gov>; roxanne.kwan@doh.hawaii.gov; Shalev, Omer <Shalev.Omer@epa.gov>; Pallarino, Bob <Pallarino.Bob@epa.gov>; Ichinotsubo, Lene K <lene.ichinotsubo@doh.hawaii.gov>  
Cc: Piedmont, Eddie D CIV NAVFAC EXWC, CI10 <edwin.piedmont@navy.mil>; Kern, Frank CIV EXWC, CI11 <frank.kern@navy.mil>; Regin, Terri M CIV EXWC, CI11 <terri.regin@navy.mil>; Sanpedro, Lean-Miguel P CIV NAVFAC EXWC, CI9 <lean-miguel.sanpedro@navy.mil>; Jamond, Robert M CIV NAVFAC EXWC, CI10 <robert.jamond@navy.mil>  
Subject: RE: Red Hill Coupon Meeting Notes and Revised Sketches

Omer, Roxanne,

The following is a summary from our notes on Section 5 Destructive Testing meeting/sketch review on 18 April. Also includes my notes from a follow up discussion I had with Steve on 20 April. Please let us know if we missed anything.

Overall the meeting went well. There was some discussion about the fact that we have not received the expected findings at each coupon location from the NDE contractors. Frank Kern mentioned that we may not receive this information before we are scheduled to cut out the coupons. If this the case, EPA agreed that the drawings Miguel San Pedro put together would suffice.

1. Sketches should have notes showing that there are no markings of indications below 200 mil, the reporting threshold. I have added a note to that effect under every coupon sketch.

2. Locational accuracy: Locations of indications are accurate to 1 in.

3. Width of indications: All the NDE data we have right now on Tank 14 are in the spreadsheet EEI provided. The spreadsheet does not have info on the width of indications.

4. Uncertainty of pit depths: The NDE data in the spreadsheet do not have info on uncertainty (tolerances, +/- values) in the pit depths either.

5. EPA brought up the idea of 3D models of the pits and surrounding areas. TestTex usually has those models, but it hasn't provided them to the Navy yet.

6. The idea behind DT is to validate what LFET (TesTex) found, not necessarily to validate what PAUT (EEI) found.

7. We are now using Location A1 instead of Location 7, so we can investigate the possible general corrosion on A1. Location 7 is very similar to Location 2, so Location 7 was changed to an alternate. Also, Location 9, in my opinion, may have to be avoided because the X-coordinate shows it's very close to a weld. I propose replacing it with A2. So, in summary, we'll now be cutting Locations 1-6, 8, 10, A1, and A2 (unless someone objects to the idea of replacing Location 9 with Location A2). The coupons we'll be cutting are shown in green tabs in the attached spreadsheet; the coupons we're avoiding (or have alternates for) are in red tabs.

Follow on discussion with Steve Linder on 20 April:

1) We need to avoid as much as possible getting any false negatives. That is, upon analyzing a coupon, discover there was a pit or some other flaw we should have noted as "requiring maintenance" but did not. In other words, we missed something.

2) To that end we need to have a final report before any coupon is pulled specifying exactly which indications will be repaired and what will not. It was not clear from the spreadsheet they have or Tuesday's meeting whether or not all the indications listed on the spreadsheet will be repaired. How do we determine which repairs listed under the column heading of "Recommended Repairs" actually gets repaired? What is the decision tree for making this determination? Do we now know which of the items listed on the spreadsheet will be repaired and which will not? We should not pull any coupons until this is done.

3) Under the TESTEX headings it was not clear whether wall thickness recorded came from LFET or UT

4) On the RECOMMENDED REPAIR SUMMARY worksheet, what is meant by "Predicted Repairs" and Discovered Repairs"?

5) How are we defining a false negative?

6) As far as location accuracy is concerned, what can we live with? How are we defining/determining that?

v/r  
Mark